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| 10/666,247 | 09/22/2003 | Robert Arwood | 1303 US | 9507 |
| 20346 | 7590 | 11/15/2005 | EXAMINER | |
| KEY SAFETY SYSTEMS, INC. PATENT DEPARTMENT 5300 ALLEN K BREED HIGHWAY LAKELAND, FL 33811-1130 | | | ROSENBERG, LAURA B | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3616 | |

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 16 August 2005, in which claims 1, 12 and 20 were amended, has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 7, 8, 10-13, and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keeler et al. (5,344,184) in view of Schneider (6,431,583). Keeler et al. disclose a knee bolster assembly (#10) for a vehicle comprising:

- Air bag (#42) having an inflated condition (best seen in figures 2, 4) and a "deflated" condition (best seen in figures 1, 3)
- Air bag inflator (#44)
- Knee contact plate (including #36) located in front of the airbag (best seen in figures 3, 4) and able to be moved by inflation of the airbag (via thrust developed by the gas

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escaping from the inflator and into the airbag; column 6, lines 1-9), the knee contact plate having an actuated position (best seen in figures 2, 4) and an unactuated position (best seen in figures 1, 3)

- Guide structure (#110, 116) attached to the knee contact plate (via #124, 126, 128) and able to direct the knee contact plate along a generally linear path from the unactuated position to the actuated position (best seen in figures 1-5)
- Guide structure directs the knee contact plate to an anticipated location of a knee of a vehicle occupant (best seen in figures 2, 4)
- Guide structure comprises a first member (including #122, 152) disposed within a second member (including #150), the first member able to extend from the unactuated position to the actuated position along the generally linear path relative to the second member (best seen in figure 5)
- First member comprises a guide "pin" (including #122, 152) having a first tapered surface (shoulders of #152 that face upwards in figure 5)
- Second member comprises a guide tube (including #150) having a second tapered surface (near #153)
- First tapered surface mating with the second tapered surface in the actuated position (best seen in dotted lines in figure 5), which stops the movement of the knee bolster (column 5)
- Air bag housing (including #20, 96, 98, 100, 102)
- Air bag has a rear area disposed closer to the air bag housing when inflated and a front area where the knee contact plate is disposed (best seen in figures 2, 4)

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- Knee contact plate comprises a cushion (#36; column 3, line 40)
- Guide structure is able to expand and is able to retract between the actuated position and the unactuated position (best seen in figures 1-5)

Keeler et al. do not specifically disclose a tether attaching the air bag to the knee contact plate.

Schneider teaches a knee bolster assembly (#10) for a vehicle comprising:

- Air bag (#22) having an inflated condition (best seen in figure 7) and a “deflated” condition (best seen in figure 6)
- Air bag inflator (#54)
- Air bag housing (#26)
- Knee contact plate (#28, 29) having an actuated position (best seen in figure 7) and an unactuated position (best seen in figure 6)
- Tether (including #30) attaching airbag to knee contact plate
- Guide structure (including #48, 50, 52) attached to the knee contact plate (at #60 and able to direct the knee contact plate along a generally linear path from the unactuated position to the actuated position (column 8, lines 7-16; best seen in figure 7)
- Guide structure comprises a first member (including #48, 50 within #60) and a second member (including #48, 50 within #61), the first member able to extend from the unactuated position to the actuated position along the generally linear path relative to the second member (best seen in figures 6, 7)

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- Air bag has a rear area disposed closer to the air bag housing when inflated and a front area where the knee contact plate is disposed (best seen in figure 7)
- Guide structure directs the knee contact plate to an anticipated location of a knee (part of #13) of a vehicle occupant (#12)

It would have been obvious to one skilled in the art at the time that the invention was made to modify the knee bolster assembly of Keeler et al. such that it comprised a tether attaching the air bag to the knee contact plate as claimed in view of the teachings of Schneider so as to position the knee contact plate in the correct deployed position and to prevent the knee contact plate from being propelled into the passenger compartment by the inflating air bag (Schneider: column 6).

The method of claim 20 reads on the apparatus described above.

Response to Arguments

4. Applicant's arguments filed 16 August 2005 have been fully considered but they are not persuasive.

In regards to the top of page 6, Keeler discloses a guide structure comprising a first member (including #122, 152) disposed within a second member (including #150), the first member able to extend from the unactuated position to the actuated position along the generally linear path relative to the second member (best seen in figure 5). The first member comprises a guide "pin" (including #122, 152) having a "first tapered surface" (shoulders of #152 that face upwards in figure 5), and the second member comprises a guide tube (including #150) having a "second tapered surface" (near #153).

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The first tapered surface mates with the second tapered surface in the actuated position (best seen in dotted lines in figure 5), which stops the movement of the knee bolster (column 5). For further clarification, when in the actuated position, the piston head and arm (#152, 122) are moved toward a fully extended position (as seen in dotted lines in figure 5), in which the upwardly facing shoulders of the piston head and the downwardly facing edges of the housing (#150, downwardly facing edges near #153) contact each other and act as a stop.


In regards to the middle of page 6, the guide structures of both the Schneider and Keeler et al. references are indeed able to direct the knee contact plate along a "generally linear path", as set forth in the prior art rejection above. This feature of the claims is extremely broad and is not positively recited. Thus, it can be read upon in many ways, and the prior art only has to have the ability to perform in this manner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B. Rosenberg whose telephone number is (571) 272-6674. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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